

Appendix Table 1. Preliminary pre-sample and applied liquid swine manure sample total nutrient analysis summary from each demonstration site, 2000.

Swine Manure Nutrient Utilization Project - 2000 CORN Field Sites

Understanding Nutrient Rates Applied in Replicated Manure Strip Treatments

Field sites listed alphabetically by county name.

Field sites with liquid swine manure applied before 2000 corn crop (first-year manure treatment effect evaluation).

County	Field site (Nearby town)	Desired Application Rates	Nutrient Analysis of Pre-Application Manure Sample (lb/1000 gallon total nutrients)	Calculation of Manure Treatment Strip Application Rates (GPA = gallons per acre)	Nutrient Analysis of Field-Applied Manure Samples (lb/1000 gal Total Nutrients)	Estimated Total Manure Nutrients Applied (Applied sample analysis X calculated application rate)		
						lb Total Nutrients/Acre		
						N	P ₂ O ₅	K ₂ O
Clay	Spencer	Check = No manure, no fertilizer	Based on previous samples,	No manure nor commercial fertilizer applied to check strips	64 lb Total N/1000 gallon	0	0	0
	"CORN after SB" field site	Low rate = 75 lb Total N/acre	assumed nutrient analysis of	(75 lb total N/acre) / (58 lb total N/1000 gal) = 1,300 GPA	38 lb Total P ₂ O ₅ /1000 gallon	77	46	38
	Manure applied 4/26, inc. 4/27/00	High rate = 150 lb Total N/acre	58 lb Total N/1000 gallon	(150 lb total N/acre) / (58 lb total N/1000 gal) = 2,600 GPA	32 lb Total K ₂ O/1000 gallon	154	91	77
Hardin	Buckeye	Check = No manure, no fertilizer	42.5 lb Total N/1000 gallon	No manure nor commercial fertilizer applied to check strips	No field-applied sample available.	0	0	0
	"CORN after SB" field site	Low rate = 100 lb Total P ₂ O ₅ /acre	52 lb Total P ₂ O ₅ /1000 gallon	(100 lb total P ₂ O ₅ /ac) / (52 lb total P ₂ O ₅ /1000 gal) = 1,923 GPA	Estimate of total manure nutrients	82	100	81
	Manure injected 03/30/2000	High rate = 193 lb Total N/acre	42 lb Total K ₂ O/1000 gallon	(193 lb total N/acre) / (42.5 lb total N/1000 gal) = 4,541 GPA	applied based on pre-sample.	193	236	191
Plymouth	LeMars	Check = No manure, no fertilizer	Based on previous samples,	No manure nor commercial fertilizer applied to check strips	79 lb Total N/1000 gallon	0	0	0
	"CORN after SB" field site	Low rate = 75 lb Total N/acre	assumed nutrient analysis of	(75 lb total N/acre) / (71 lb total N/1000 gal) = 1,060 GPA	51 lb Total P ₂ O ₅ /1000 gallon	308 ^a	199 ^a	164 ^a
	Manure injected 03/29/2000	High rate = 150 lb Total N/acre	71 lb Total N/1000 gallon	(150 lb total N/acre) / (71 lb total N/1000 gal) = 2,120 GPA	42 lb Total K ₂ O/1000 gallon	526 ^a	340 ^a	280 ^a
Washington	West Chester	Check = No manure, no fertilizer	Based on previous samples,	No manure nor commercial fertilizer applied to check strips	54 lb Total N/1000 gallon	0	0	0
	"CORN after SB" field site	Fall-appl. anhydrous NH ₃ (140 lb N/acre)	assumed nutrient analysis of	- -	47 lb Total P ₂ O ₅ /1000 gallon	- -	- -	- -
	Manure injected Nov. 1999	Manure rate = 200 lb Total N/acre	50 lb Total N/1000 gallon	(200 lb total N/acre) / (50 lb total N/1000 gal) = 4,000 GPA	45 lb Total K ₂ O/1000 gallon	216	188	180
Webster	Fort Dodge	Check = No manure, no fertilizer	Based on previous samples,	No manure nor commercial fertilizer applied to check strips	58 lb Total N/1000 gallon	0	0	0
	"CORN after SB" field site	Low rate = 75 lb Total N/acre	assumed nutrient analysis of	(75 lb total N/acre) / (64 lb total N/1000 gal) = 1,200 GPA	40 lb Total P ₂ O ₅ /1000 gallon	70	48	43
	Manure injected 04/24/2000	High rate = 150 lb Total N/acre	64 lb Total N/1000 gallon	(150 lb total N/acre) / (64 lb total N/1000 gal) = 2,400 GPA	36 lb Total K ₂ O/1000 gallon	139	96	86

^a Application equipment & tractor speed limitations resulted in actual application rates of approximately 3,900 and 6,660 GPA.

Appendix Table 1 continued. Preliminary pre-sample and applied liquid swine manure sample total nutrient analysis summary from each demonstration site, 2000.

Swine Manure Nutrient Utilization Project - 2000 SOYBEAN Field Sites
 Understanding Nutrient Rates Applied in Replicated Manure Strip Treatments
 Field sites listed alphabetically by county name.

Field sites with liquid swine manure applied before 2000 soybean crop (first-year manure treatment effect evaluation).

County	Field site (Nearby town)	Desired Application Rates	Nutrient Analysis of Pre-Application Manure Sample (lb/1000 gallon total nutrients)	Calculation of Manure Treatment Strip Application Rates (GPA = gallons per acre)	Nutrient Analysis of Field-Applied Manure Samples (lb/1000 gal Total Nutrients)	Estimated Total Manure Nutrients Applied (Applied sample analysis X calculated application rate)		
						lb Total Nutrients/Acre		
						N	P ₂ O ₅	K ₂ O
Clay	Spencer	Check = No manure, no fertilizer	Based on previous samples,	No manure nor commercial fertilizer applied to check strips	67 lb Total N/1000 gallon	0	0	0
	"SB after CORN" field site	Low rate = 100 lb Total N/acre	assumed nutrient analysis of	(100 lb total N/acre) / (58 lb total N/1000 gal) = 1,700 GPA	43 lb Total P ₂ O ₅ /1000 gallon	114	73	54
	Manure applied 4/26, inc. 4/27/00	High rate = 200 lb Total N/acre	58 lb Total N/1000 gallon	(200 lb total N/acre) / (58 lb total N/1000 gal) = 3,400 GPA	32 lb Total K ₂ O/1000 gallon	228	146	109
Hardin	Buckeye	Check = No manure, no fertilizer	Two manure sources (lb/1000 gal)	No manure nor commercial fertilizer applied to check strips		0	0	0
		Low P rate = 40 lb Total P ₂ O ₅ /acre	35 lb N - 28 lb P ₂ O ₅ - 32 lb K ₂ O	(40 lb total P ₂ O ₅ /ac) / (28 lb total P ₂ O ₅ /1000 gal) = 1,420 GPA	44 lb N - 29 lb P ₂ O ₅ - 30 lb K ₂ O	62	41	43
		High P rate = 100 lb Total P ₂ O ₅ /acre	43 lb N - 52 lb P ₂ O ₅ - 42 lb K ₂ O	(100 lb total P ₂ O ₅ /ac) / (52 lb total P ₂ O ₅ /1000 gal) = 1,923 GPA	43 lb N - 52 lb P ₂ O ₅ - 42 lb K ₂ O	83	100	81
		N rate = 192 lb Total N/acre	43 lb N - 52 lb P ₂ O ₅ - 42 lb K ₂ O	(192 lb total N/acre) / (43 lb total N/1000 gal) = 4,465 GPA	43 lb N - 52 lb P ₂ O ₅ - 42 lb K ₂ O	192	232	188
Webster	Fort Dodge	Check = No manure, no fertilizer	Based on previous samples,	No manure nor commercial fertilizer applied to check strips	71 lb Total N/1000 gallon	0	0	0
		Low rate = 100 lb Total N/acre	assumed nutrient analysis of	(100 lb total N/acre) / (64 lb total N/1000 gal) = 1,600 GPA	54 lb Total P ₂ O ₅ /1000 gallon	91	58	59
		High rate = 200 lb Total N/acre	64 lb Total N/1000 gallon	(200 lb total N/acre) / (64 lb total N/1000 gal) = 3,200 GPA	39 lb Total K ₂ O/1000 gallon	182	115	118